SP 14842 N

American Spraytech

2009040407

DOT/RSPA/OHMS
09 APR 13 PM 3:27

Special Permits, DHM-31
Associate Administrator
U.S. Department of Transportation
Pipeline & Hazardous Materials Safety Administration
Research & Special Program Administration
400 Seventh Street S.W.
Washington, DC 20590

April 5, 2009

PHMSA-2009-0144

Dear Sir / Madam:

Re: Application for Special Permit - New Bag-On-Valve Product

We are an aerosol sub-contractor located in Somerset County, NJ. We manufacture and aerosolize personal care and OTC products. We are filling our third Bag-On-Valve (Pouch System) for our customer. This product is exactly similar to our second product for which you have issued special exemption permit # DOT-SP 14723. The only difference is the size of the can / fill and the intended use of the product. The product is in a pouch which never comes into contact with inert gas – in this case the gas is Nitrogen. This product is non-flammable and contains 99.1% water.

We hereby request an exemption grant from the DOT requirement of Hot Water Bath test of each unit. An automated in line vapor pressure check will be performed on 100% of the units in lieu of the Hot Water Bath specified in the HMR. This will provide the necessary assurance that there is no leakage of the gas or product and that it is absolutely safe with no hazards and risks associated with the transportation of this product by public carrier. The finished product will be transported in the US by regular commercial trucks designated as Consumer Commodity – ORM-D.

Specifications:

Can

Material: Aluminum, Pressure rating DOT 2P
Size: 45MM x 125MM – Machine Curled

IN-HMIS

205 Meister Avenue, North Branch, NJ 08876 • Tel: (908) 725-6060 • Fax: (908) 725-1932
www.americanspraytech.com

XJ

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Lining: Epoxy Phenolic
Non-refillable container
Meets all requirements of 49 CFR 173.306 (a) (3)

Valve

Aluminum PET pouch mounted on an aluminum valve. Each pouch is pressure tested @ 130F for 60 days for any leakage or distortion with the product.

Finished Product:

Name: Earigate Saline Mist – Ear Wash
Vapor Pressure @ 70F – 106.0 +/- 5 psig
Vapor Pressure @ 130F – 116.0 +/- 5 psig
Net Weight: 3.3 Fl. Oz. (98 ML)

Alternate procedures to be used in place of the hot water bath test:

The container is a DOT Specification 2P non-refillable aluminum inside with an inner Aluminum / PET pouch bag that contains only saline water. The fill / discharge valve is attached to the PET bag. The bag-on-valve inner package is inserted into the aluminum container and affixed by a crimping process. The intermediate space between the two packaging systems is filled with inert Nitrogen gas to a nominal pressure of 106 psig. This final package is then leakage tested by an in-line pressure check in lieu of the hot water bath specified in the Hazardous Materials Regulations (HMR). Please see the attached **Exhibit A** which describes the process of pressure testing. This document clearly shows that we have the ability to accurately test for any out of specification (leaking) cans. In the case of this product, if the pressure measured on any container during the in-line pressure check is less that 101 psig or greater than 111 psig then the container must be rejected.

Type of machine or inspection techniques which are to be used:

We have described the inspection technique in item # 1 above. Further, please see **Exhibit B** which gives you the type of machine used for the pressure tester along with all its specifications.

Drawings of the aerosol container being manufactured:

We have attached the drawings and specifications of the can and the bag-on-valve which is the complete container. **Please see Exhibits C & D.**

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The burst test results for the aerosol container:

As shown on the can specification sheet, the container has a pressure resistance rating of 2P, which means it can withstand pressures of up-to 160 psig. The saline water product pressure will not exceed 116 psig when filled at room temperature. At 130F, the maximum pressure of this product increases by only approximately 10 psig, therefore again making use of a water bath irrelevant for the product.

We hope that the above information will provide you with all the information to show that a can of bag-in-valve system saline water product, filled in the manner noted, has no need for a hot water bath test as required per 49 CFR 107.105; 49 CFR 107.107, and therefore merits an exemption from the DOT requirement. We request the exemption for a period of three years.

Thank you very much,

Sincerely,

Allen S. Lalwani
President

Enc.: As noted above.

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www.americanspraytech.com

EXHIBIT A

Section 3) Sequence of operations

How the system works?

This system is called a Pressure Drop system. The intension is to assume Every can being tested is Bad, either over pressurized or under pressurized. The pre-charge pressure is the Nitrogen pressure coming in to the system. The Pre-charge pressure is set 3-5 P.S.I. above the High range setting of the Sensor. The container pressure is should be 3-5 P.S.I. below the high setting of the pressure sensor Containers coming down the conveyor from the filling machine back up into the pressure tester container star wheel. When enough back pressure is present a container forces the container star wheel forward.

The station start cycle proximity sensor senses the star wheels position and tells the PLC to perform two functions, # 1 closes the 2-way test gas valve. #2 lowers the test head onto the aerosol valve. An adjustable time delay timer (Head down Time) controls the how long the test head is down on the container. (See factory settings below).

The gassing adapter seals down onto the aerosol valve and opens it at the same time allowing the test gas to flow into the container only. Backflow into the test head from the container is not allowed due to the check valve located at the test head where the black hose is attached to the test head.

The pressure sensor is sensing the pressure in the black 1/8 hose between the 2-way gas valve and the aerosol container. The sensed pressure is logged in the pressure sensor. The Head down timer times out and retracts the test head up off the aerosol valve. If the container back pressure is still present the next can pushes the star wheel forward and releases the tested container back onto the conveyor.

The container star wheel proximity sensor senses the star wheel movement. If the pressure in the test head between the sensor and the container dropped down between the high and low settings of the sensor the container pressure is good and is allowed to pass the eject position. If the pressure between the gas valve and the container does not drop at all this means the container is over pressurized so the PLC tells the Eject cylinder to extend and eject the container at the eject position. If the pressure between the gas valve and the container drops below the low setting on the pressure sensor the can is considered low so it is also ejected.

The eject cylinder extend is controlled by an adjustable timer (Delay eject extend) which is set to the conveyor speed (See factory settings below).

The retracting of the eject cylinder is also controlled by an adjustable timer (Delay eject Retract) which retracts the eject cylinder once the can is fully off the conveyor belt.

The air flow control controls the speed of which the air cylinder moves so any adjustments to the flow control may affect the timer setting. If the can back pressure is still present the machine will continue to test pressures.

EXHIBIT B

TITANCO
...for the competitive edge.

NON EXPLOSION PROOF
ELECTRONIC PLC CONTROLLED
PRESSURE TESTER
(Pressure Drop Style)

HLB-4552

Table of Contents

Section 1) Specifications

Warning! This Machine is NOT EXPLOSION PROOF and should NOT be located in any unsafe area that might contain flammable or explosive Gases or materials of any kind. See Electrical Specifications below.

ENVIRONMENT

Operation Temperature:	0 c to +40 c / +32 F to 104 F
Storage Temperature:	0 c to +40 c / +32 F to 104 F
Relative Humidity:	5 to 95% Non-Condensing

PHYSICAL

Total Machine Weight:	300 LBS

ELECTRICAL POWER

Input Voltage:	**110/220 VAC + or – 10%**
Frequency Range:	50 / 60 HZ
Phase:	Single (1)
Classification:	Class 1 Div 2 Groups A, B, C, D (NON EXPLOSION PROOF)

DISPLAY / PRESSURE SENSOR

Manufacturer:	**KEYENCE**
Model #:	AP-33K (P) Series
Pressure Rating:	0-145 P.S.I. / 0-9.8 Bar
Inlet Vapor Types:	Non-corrosive, non-flammable or non-Explosive vapor Gases.
Suggested vapor:	Clean dry Nitrogen vapor
L.E.D. Readout	3-1/2 digit 2 color 7-segment
Classification:	Class 1 Div 2 Groups A, B, C, D (NON EXPLOSION PROOF)

Terco Factory settings

- Unit Setting: Inch
- Operation Mode: F-4 (Window Mode)
- N.O/N.C: N.O.
- Chattering Prevention: 2.5 (2.5ms)
- Display Color Selection: 2-C
- Hysteresis Mode: (F-4)

PLC CONTROL PANEL

Manufacturer:	A.J. Hudson Company (Wheaton Illinois) 1-630-665-6920 (Steve)
Part #:	HLB-4552

AIR SUPPLY

Suggested inlet air quality:	5 micron or better using an air dryer
Inlet air supply:	80 P.S.I. Min / 200 P.S.I. Max
Air consumption:	.075 SCFM Per single cycle w/Reject
Minimal Inlet Pipe Size:	½ inside diameter

TEST GAS SUPPLY

Pressure Rating:	0-145 P.S.I. / 0-9.8 Bar
Inlet Vapor Types:	Non-corrosive, non-flammable or non-Explosive vapor Gases.
Suggested vapor:	Clean dry Nitrogen vapor
Minimal inlet pipe size:	¼ inside diameter

EXHIBIT C

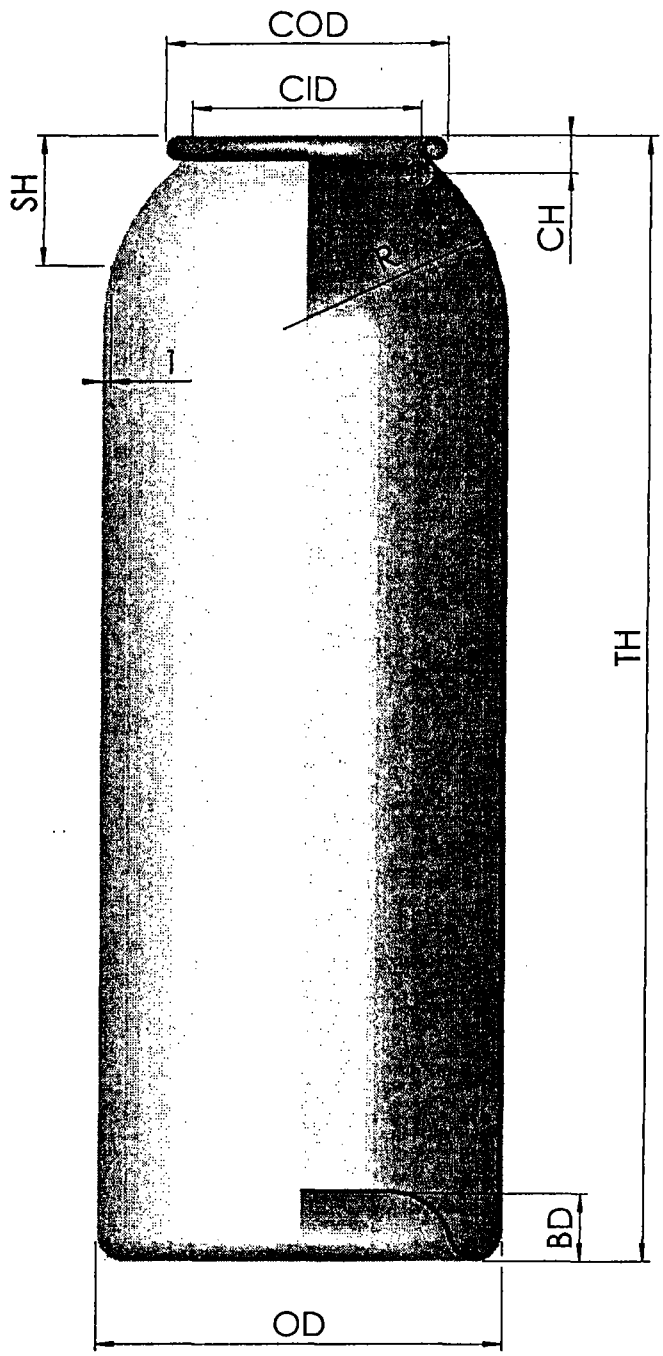
ARTICLE:
WHITE CANS #4101

CLIENT:
AMERICAN SPRAYTECH

DIMENSIONS

ALL DIMENSIONS ARE IN MM.

OD	Outside Ø	45 +/- 0.2
TH	Total Height	125 +/- 0.75
R	Shoulder Radius	Oval
COD	Curl Outside Ø	31.3 +/- 0.2
CID	Curl Inside Ø	25.4 +/- 0.1
SH	Shoulder Height	15.0 +/- 0.75
BD	Bottom Deformation	7.5 +/- 0.75
CH	Contact Height	4.25 +/- 0.25



SPECIFICATIONS

Raw Material	Aluminum 99.7%
Shoulder	Oval
Lining	Pam 8460
Curl	1" Outside Non-Machined
Pressure Resistance	2P

NOTE

Please advise if any special caps, collars, fitments, etc. are to be used with this container, they may affect copy height or container contour.

___ **CAP** ___ **PUMP** ___ **PLUG** ___ **OTHER**

DATE: 3/18/09

NOTICE

DRAWING MUST BE SIGNED BY THE CUSTOMER FOR APPROVAL PRIOR TO PRODUCTION.

Name: [signature] Date: 3-19-09

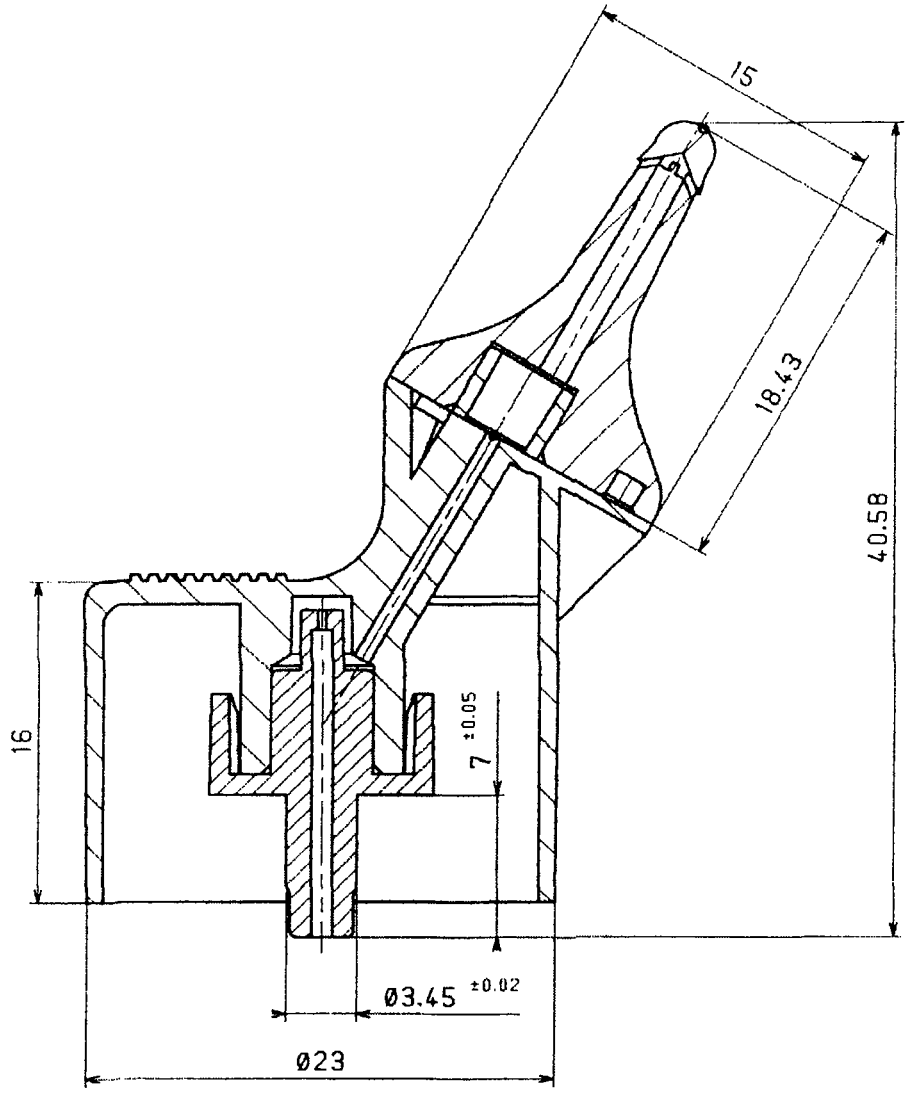
Aerosol Can 45 x 125 mm

EXAL CORPORATION

EXcellence in ALuminum

Dwg No. 45125A05

EXHIBIT D



POUSSOIR AURICULAIRE

DIFFUSEUR

CHAINE DE COTES

MATIERE	N° TECH. PIECE XXX
DESSINATEUR: DD	N° TECH.: 1040502
DATE: 3/09/04	Tol. gén:±0.1
ECHELLE: 3	

TECHNIPLAST
Rue de Lery - BP 705
27407 LOUVIERS cedex
TEL :02 32 25 26 47 - FAX : 02 32 25 10 58
e.mail:techniplast@techniplast.com

N°:1040502

EP SPRAY SYSTEM®

SPECIFICATION SHEET

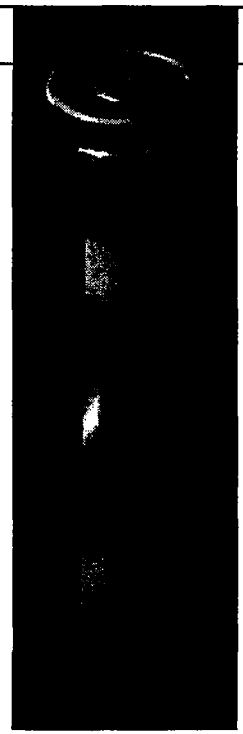
1160 North Silver Lake Road, Cary, IL 60013
Tel 847 462 3217 Fax 847 462 3717

Product	**VALVE-POUCH 100ML, ALU CAN 45x125MM**	**EP Spray System Part Nr.**	**6604/D1:01**
Client	**American Spray Tech** **North Branch, NJ**	**Drawing Nr.**	
		Client Part Nr.	
Application	**Sterile Water Spray**		

Dear Customer,
We are pleased to provide you below with the specification data of the material pertaining to each component of the EP SPRAY system mentioned above. All the following data has to be considered as strictly confidential.

Component	*Material*	*Specifications*	*Weight (g)*
[redacted]			
Valve body	**PP**	Borealis HJ325 MO	1.18
Piston	**POM**	Kepital F25-03	0.17
Spring	**Inox**	AISI 302	0.37
Internal Gasket	**Buna**	B 218	0.16
Mounting Cup	**Aluminum**	Clear lacquered	2.08
External Gasket	**Butyl**	1.2mm	0.40
		TOTAL (approx.) :	**7.02**

Meet §3 and 4 of the decree No 98-638 dated 20/07/98 (heavy metal).



Cary, IL
6/23/2008

Bryan Ching
EP Spray System

Customer Approval

Name & Title of Signee

EXHIBIT D